WHAT IS CLAIMED IS:

1.   A method for uploading files for online storage in a global communication network having a client server computer and a plurality of client computers, the method comprising:

identifying files to be uploaded for online storage as part of a first operation;

for each identified file, generating a record to be uploaded to the client server computer, the record including identifying information for the corresponding file, the identifying information comprising file size and file checksum data;

receiving the records for the first operation at the client server computer;

creating a first operation storage area for the first operation in memory of the client server computer;

maintaining a central data base of records at the client server, wherein each record of the central database comprises file identifying information, wherein the file identifying information is not duplicated in any other record of the central database; and

for each one record received as part of the first operation, determining at the client server computer whether to request that the associated file be uploaded from the client computer, and adding an entry into the corresponding first operation storage area;

wherein said determining comprises testing the identifying information in said received one record to seek a match against identifying information of any records within the central database,

wherein for a case in which a match is found the associated file is not uploaded from the client computer and said adding comprises adding the identifying information as part of the corresponding entry in the first operation storage area, and wherein file contents for the associated file are not stored in the corresponding first operation storage area,

wherein for a case in which a match is not found, the associated file is uploaded from the client computer and said adding comprises receiving file contents for the associated file from the client computer and storing the received file contents and the unmatched identifying information as the entry in the first operation storage area.

2.   The method of claim 1, further comprising the step of adding an entry into a file log for each one record received, wherein said entry comprises the identifying information for said one record, wherein a common file log is maintained at the client server for all client computers, and wherein for the case in which a match is not found, further comprising:

        searching the file log to count a number of entries which have identical identifying information; and

        when said number exceeds a threshold number creating a record in the central database for the identifying information.

3.   The method of claim 1, wherein for the case in which a match is not found, further comprising the step of adding an entry into the central database when said identifying information has been uploaded to the client server computer for a threshold number of times.

4.   The method of claim 1, wherein for the case in which a match is not found, further comprising the step of adding an entry into the central database when said identifying information has been uploaded to the client server computer by a threshold number of client computers.

5.   The method of claim 1, in which the first operation is a back-up operation of files from the client computer to the client server computer, and further comprising:

        identifying a back-up operation to restored to a requesting client computer;

        locating the operation storage area for the identified back-up operation;

        for each record in the located operation storage area, downloading the corresponding file contents to the client computer as part of a restore from back-up process.

6.   The method of claim 5, further comprising prior to the step of downloading the steps of:

determining whether file contents associated with the identifying information of said record in the located operation storage area are present in said located operation storage area;

for the case in which the associated file contents are not present, searching the central database for the central database record with matching identifying information; and

accessing the file contents associated with the matching central database record as being the corresponding file contents to be downloaded for the corresponding record in the operation storage area.

7. The method of claim 1, further comprising the steps:

maintaining an operation log having an entry for each operation, each operation log entry comprising an operation identifier, and

recovering back-up files stored on the client server for a back-up operation, said recovering comprising the steps of:

downloading from the client server to a requesting client computer a list of back-up operations performed for the requesting client computer derived from a search of the operation log;

selecting at the client computer a back-up operation to restore from the list of back-up operations;

receiving at the client server an indication of the back-up operation to be restored;

locating the operation storage area corresponding to the indicated back-up operation; and

for each record in the located back-up storage area downloading the corresponding file contents to the client computer.

8. The method of claim 1, in which the first operation is a back-up operation and further comprising the steps of:

generating at the client server computer an archive copy of the identified files onto a portable media.

9. The method of claim 8, in which the step of generating comprises:

for an identified file, searching the central database for a central database record identifying information which matches the identifying information of the identified file; and

accessing the file contents associated with the matched central database record as being the corresponding file contents to be included in the archive copy.

10.   The method of claim 1, in which the first operation is a publishing operation and further comprising the steps of:

receiving an indication from the client computer requesting the publishing operation a number of copies to publish; and

generating at the client server computer a copy of the identified files onto a portable media for each of said number of copies to publish.

11. The method of claim 10, in which the step of generating comprises:

for an identified file, searching the central database for a central database record identifying information which matches the identifying information of the identified file; and

accessing the file contents associated with the matched central database record as being the corresponding file contents to be included in each of said number of copies.

12. The method of claim 1, further comprising the steps of:

generating a first icon at the client computer for accessing online storage;

in response to activation of the icon, displaying a directory of online storage data generated during prior upload operations by the client computer.

13. The method of claim 12, wherein the directory comprises a listing of back-ups.

14.   The method of claim 13, wherein the directory comprises a listing of files associated with a select back-up among said listing of back-ups.

15.   The method of claim 1, in which the first operation is a publishing operation and further comprising the steps of:

generating a first icon at the client computer for accessing a publication from online storage, wherein the publication is an image file having an image file type from among a group of image file types including a video image, an audio image, an audio-video image and a multimedia image; and

5   in response to activation of the first icon, streaming the image file from the client server to the requesting client computer for real-time playback at the requesting client computer.

16.   A method for uploading files for online storage in a global communication
10   network having a client server computer and a plurality of client computers, the method comprising:

identifying files to be uploaded as part of a first operation;

for each identified file, generating a record to be uploaded to the client server computer, the record including identifying information for the corresponding file, the
15   identifying information comprising file size and file checksum data;

receiving the records for the first operation at the client server computer;

for each one record received as part of the first operation, testing data records of a database to determine whether there is a record in the database having the same identifying information, for the case in which there is a record in the database with
20   matching identifying information, adding a new record into the database which includes an operation identifier and the identifying information without corresponding file contents;

wherein for the case in which there is not a record in the database with matching identifying information, receiving the file contents from the client
25   computer, and adding a new record into the database which includes an operation identifier, the identifying information, and the corresponding file contents.

17. The method of claim 16, in which the operation identifier comprises a timestamp.

30   18. The method of claim 16, in which the database is a file cache.

19.   The method of claim 16, in which the first operation is a back-up operation, and further comprising:

identifying the back-up operation which corresponds to a requested restore-from-back-up from a requesting client computer;

locating each record in the database corresponding to the identified back-up operation; and

5   for each located record in the database having file contents downloading the file contents to the client computer; and

for each located record in the database having not file contents, locating another record in the database which has file contents and the same identifying information, and downloading the file contents of said another record to the client
10   computer.

20.   The method of claim 16, in which the first operation is a back-up operation and further comprising the steps of:

generating at the client server computer an archive copy of the identified files
15   onto a portable media.

21.   The method of claim 20, in which the step of generating an archive copy comprises:

for an identified file, searching the database for an entry having identifying
20   information which matches the identifying information of the identified file and which includes file contents; and

storing the file contents from the matched information in the archive copy as being the corresponding file contents for the identified file.

25   22.   The method of claim 16, in which the first operation is a publishing operation and further comprising the steps of:

receiving an indication from the client computer requesting the publishing operation a number of copies to publish;

generating at the client server computer a copy of the identified files onto a
30   portable media for each of said number of copies to publish.

23.   The method of claim 22, in which the step of generating the copy onto portable media comprises:

for an identified file, searching cache memory for an entry having identifying
information which matches the identifying information of the identified file and
which includes file contents; and

storing the file contents from the matched information as being the
corresponding file contents for the identified file to be included in each of said
number of copies.

24. The method of claim 16, further comprising the steps of:

generating a first icon at the client computer for accessing online storage;

in response to activation of the icon, displaying a directory of online storage
data generated during prior upload operations by the client computer.

25. The method of claim 24, wherein the directory comprises a listing of back-ups.

26. The method of claim 25, wherein the directory comprises a listing of files
associated with a select back-up among said listing of back-ups.

27.   The method of claim 16, in which the first operation is a publishing operation
and further comprising the steps of:

generating a first icon at the client computer for accessing a publication from
online storage, wherein the publication is an image file having an image file type from
among a group of image file types including a video image, an audio image, an audio-
video image and a multimedia image; and

in response to activation of the first icon, streaming the image file from the
client server to the requesting client computer for real-time playback at the requesting
client computer.

28.   An online storage system, comprising:

a client server computer comprising system memory and expandable memory,

a plurality of client computers;

means for carrying communications between the plurality of client computers
and the client server computer;

means for identifying files to be uploaded for online storage as part of a first operation;

means for generating, for each identified file, a record to be uploaded to the client server computer, the record including identifying information for the corresponding file, the identifying information comprising file size and file checksum data;

a reference storage area within client server computer system memory comprising a first operation storage area for the first operation;

a central data base within client server memory system memory comprising records, wherein each record comprises file identifying information, wherein the file identifying information is not duplicated in any other record of the central database; and

means for determining at the client server computer, for each one record received as part of the first operation, whether to request that the associated file be uploaded from the client computer

means for adding, for each one record received as part of the first operation, an entry into the corresponding first operation storage area;

wherein said determining means comprises means for testing the identifying information in said received one record to seek a match against identifying information of any records within the central database,

wherein for a case in which a match is found the associated file is not uploaded from the client computer and said adding means comprises means for adding the identifying information as part of the corresponding entry in the first operation storage area, and wherein file contents for the associated file are not stored in the corresponding first operation storage area,

wherein for a case in which a match is not found, the associated file is uploaded from the client computer and said adding means comprises means for receiving file contents for the associated file from the client computer and means for storing the received file contents and the unmatched identifying information as the entry in the first operation storage area.

29. The system of claim 28, further comprising a file log;

means for adding an entry into the file log for each one record received from a client computer, wherein said entry comprises the identifying information for said one record, wherein a common file log is maintained at the client server for all client computers; and

5   means for searching the file log, for the case in which a match is not found, to count a number of entries which have identical identifying information; and

when said number exceeds a threshold number means for creating a record in the central database for the identifying information when said number exceeds a threshold number.

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30. The system of claim 28, further comprising:

an operation log at the client server computer having an entry for each operation, each operation log entry comprising an operation identifier, and

means for recovering back-up files stored on the client server for a back-up

15   operation listed in the operation log.

31.   The system of claim 28, in which the first operation is a back-up operation and further comprising:

means for generating at the client server computer an archive copy of the

20   identified files onto a portable media.

32.   The system of claim 31, in which the generating means comprises:

means for searching the central database for a central database record with identifying information which matches the identifying information of an identified

25   file being backed-up; and

means for accessing the file contents associated with the matched central database record as being the corresponding file contents to be included in the archive copy.

30   33.   The system of claim 28, in which the first operation is a publishing operation and further comprising:

means for receiving an indication from the client computer requesting the publishing operation a number of copies to publish; and

means for generating at the client server computer a copy of the identified files onto a portable media for each of said number of copies to publish.

34. The system of claim 28, further comprising:

means for generating a first icon at the client computer for accessing online storage;

means for displaying, in response to activation of the icon, a directory of online storage data generated during prior upload operations by the client computer.

35. The system of claim 34, wherein the directory comprises a listing of back-ups.

36.   The system of claim 35, wherein the directory comprises a listing of files associated with a select back-up among said listing of back-ups.

37.   The system of claim 28, in which the first operation is a publishing operation and further comprising:

means for generating a first icon at the client computer for accessing a publication from online storage, wherein the publication is an image file having an image file type from among a group of image file types including a video image, an audio image, an audio-video image and a multimedia image; and

means for streaming, in response to activation of the first icon, the image file from the client server to the requesting client computer for real-time playback at the requesting client computer.

38. The system of claim 28, in which the reference storage means comprises:

a plurality of storage space portions, wherein each one storage space portion of the plurality of storage space portions is dedicated to a corresponding one client computer among the plurality of client computers; and

in which the central database comprises a plurality of database portions, wherein each one database portion of the plurality of database portions is dedicated to a corresponding one client computer among the plurality of client computers.